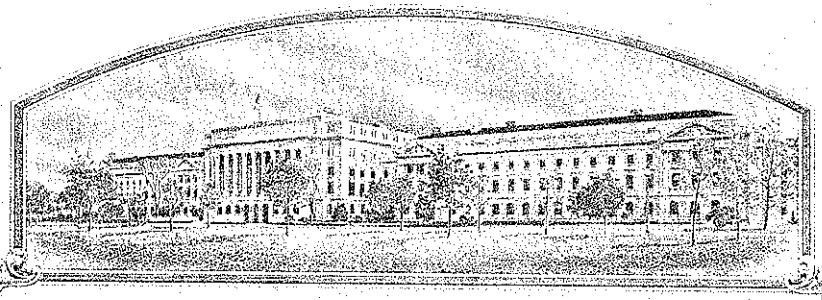

No. 8000079

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pure-Seed Testing, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

KENTUCKY BLUEGRASS

'Shasta'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 26th *day of* February *in the year of our Lord one thousand nine hundred and* eighty-one.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
305 & 307	Shasta	PV NUMBER 8000079
2. KIND NAME: Kentucky bluegrass	3. GENUS AND SPECIES NAME: Poa pratensis	FILING DATE 3/24/80 / TIME 1:30 A.M. (P.M.)
4. FAMILY NAME (BOTANICAL): Graminaae	5. DATE OF DETERMINATION: June, 1978	FEE RECEIVED $ 500.00 / $ 250.00 / DATE 3/24/80 / 1/15/81

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
Pure-Seed Testing, Inc.	P. O. Box 449, Hubbard, OR 97032	503-981-7333

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Oregon	6/3/74

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:

Dr. William A. Meyer, Ph.D., Pure-Seed Testing, Inc. P.O. Box 449, Hubbard, OR 97032

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
[X] YES [ ] NO	[X] FOUNDATION [ ] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

3/18/80
(DATE)

William A. Meyer
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

MAR 24 1980

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A.

ORIGIN AND BREEDING HISTORY OF
SHASTA (305 & 307) KENTUCKY BLUEGRASS

1. Selected from a Kentucky bluegrass seed production field in Woodburn, Oregon in May 1973.

2. This selection was clonally propagated and established in a plot as space plants 305 and 307 in Woodburn, Oregon in 1973. Space plant observations were made in 1974 and seed was collected. This seed was used to plant seed yield trials near Hubbard, Oregon in 1974. Excellent uniformity and stripe rust (Puccinia stiiformis) resistance was observed for plots 305 and 307 in the seed yield trials in the spring of 1975. Seed harvested from these trials was used to establish turf plots near Hubbard, Oregon and Greenfield, Indiana in the fall of 1975.

3. Seed harvested from clones of Shasta was used to establish 66 plant progeny tests, block 2, range D, near Hubbard, Oregon the fall of 1975. During June of 1976 the progeny test was classified as containing 64 maternal type plants and 2 aberrants (97% apomictic). Another 100 plant progeny test was established the fall of 1977 in Quad 6, Range 2 near Hubbard, Oregon. This test also indicated a 97% apomixis level. The seed harvested from these was used to establish turf tests throughout the U.S. in 1977.

4. Clonal propagules from plots 305 and 307 were used to establish Breeder seed of Shasta. This breeders seed was used to produce foundation seed. Certified fields have been established from foundation seed.

5. No objectionable off-types or aberrants have been observed in the reproduction and multiplication of this variety.

The Pacific Northwest's Grass
Breeding and Evaluation Center
Pure Seed Testing, Inc.

December 10, 1980

Mr. Joseph Higgins, Examiner
Plant Variety Protection Office
U.S.D.A.
Agr. Marketing Service
National Agr. Library Bldg.
Beltsville, MD 20705

Dear Mr. Higgins:

Subject: Kentucky bluegrass application 8000079,"Shasta".

In all progeny tests with seed harvested from space plants 305 and 307 no differences have been observed in terms of percentage of apomixis, plant height, flag leaf length, panicle length, flowering date, turf performance and stripe rust resistance. We have never observed differences between space plants 305 and 307 and we are confident that they will remain the same in successive generations.

Please let us know if you have other questions with regard to this application.

Sincerely,

W. A. Meyer

William A. Meyer, Ph.D.
President

WAM/dg

73 West G Street · PO Box 449 · Hubbard, Oregon 97032
503/981-SEED · TWX 510 590 0957

EXHIBIT B.

NOVELTY SHATEMENT FOR SHASTA KENTUCKY BLUEGRASS

Shasta Kentucky bluegrass most closely resembles Fylking, except that it has shown:

(1). Very good resistance to stripe rust and Fylking is susceptible, and (2). better spring green up.

TABLE J.-- Observations in a Kentucky Bluegrass nursery near Hubbard,Oregon planted summer, 1975.
Data was taken during the head emergence and flowering period.
All plants space 2.5 feet centers.

Cultivar or Selection	6/1/76 % Stripe Rust	1976 Initial Anthesis Date
Shasta	0	5/19
Victa	15	5/21
Columbia	15	5/25
P-59	20	5/25
Enmundi	25	5/31
Adelphi	30	5/27
Glade	30	6/3
P-143	35	5/23
Baron	35	5/21
Merion	60	5/27
Touchdown	60	5/21

TABLE K.-- Performance of Kentucky Bluegrass cultivars and selections in a test near Hubbard,Oregon seeded September, 1975.

Test maintained at two levels of fertility & mowed at 1½".

Cultivars or Selections	Percentage Stripe Rust	
	Low Maintenance	High Maintenance
Shasta	2	2
Columbia	19	12
Banff	19	17
Ram I	-	19
Adelphi	19	21
Brunswick	23	18
Majestic	23	18
Sydsport	28	17
Bonnieblue	27	27
Sylking	28	28
Glade	38	30
A-34	38	27
Birka	42	28
Merion	42	32
Victa	43	28
Baron	43	30
A-20	43	30
Newport	48	35
Park	51	40
Touchdown	55	45
LSD at 5%	7.8	10.2

TABLE L.-- Performance of Kentucky bluegrass cultivars or selections in a test near Hubbard, Oregon seeded spring, 1977. Test mowed at 1¼" and maintained at moderate to high fertility.

Cultivar or selection	Turf Quality Rating 9=best 5/28/77	7/18/77	10/8/77	11/7/77	12/28/77	1977 TQ Average	% stripe rust ave. 11/7/77	% leaf spot average 12/25/77
Columbia	7.3	8.0	8.0	7.0	7.7	7.6	8.3	6.3
BFB-35	7.3	7.0	8.0	7.3	7.3	7.4	8.0	7.3
Shasta	7.3	7.0	7.0	8.0	6.7	7.2	0	9.7
316	7.0	6.0	7.7	8.3	7.0	7.2	0	6.7
P-59	7.0	7.3	8.0	6.7	7.0	7.2	9.3	9.7
Brunswick	7.0	7.0	8.0	7.0	6.7	7.1	8.3	14.0
Parade	7.0	7.0	7.7	6.3	6.7	6.9	10.7	12.3
Bristol	6.0	7.0	7.3	7.0	7.0	6.9	9.0	11.3
Adelphi	6.3	7.0	7.3	6.7	7.0	6.9	10.7	12.3
Sydsport	6.7	7.0	7.3	6.3	7.0	6.9	16.7	8.0
Banff	7.0	7.0	7.0	6.3	6.7	6.8	11.7	8.0
K860	5.0	6.3	7.7	7.3	7.0	6.7	7.0	9.3
Rugby	7.3	6.7	6.7	6.0	6.3	6.6	13.3	9.7
Fylking	7.0	6.7	7.0	5.7	5.7	6.4	17.7	14.0
Touchdown	5.7	7.0	6.3	5.7	7.0	6.3	25.0	6.3
Baron	7.3	6.0	6.7	5.3	5.7	6.2	23.3	19.3
K173	6.3	6.0	6.7	6.0	6.0	6.2	13.3	15.0
Newport	7.7	6.7	6.3	5.0	5.3	6.2	33.3	21.7
Nugget	6.7	7.0	6.7	5.0	5.0	6.1	31.7	16.7
LSD at 5%	.8	.9	.8	.8	1.0	.9	5.5	5.5

TABLE N.--Performance of Kentucky bluegrass cultivars near Hubbard, Oregon
in a test seeded September, 1978
and maintained at a moderately high fertility level with a 1½" cutting height.

Turf Quality 9-1 (9=best)

CULTIVAR OR SELECTION	12/78	2/79	4/79	7/79	9/79	11/79	Ave. T.Q.	11/79 % Stripe Rust
1528T	7.3	7.0	7.3	8.0	6.7	6.7	7.2	12
Sydsport	7.0	6.7	7.3	7.7	6.3	6.0	6.8	10
Columbia	7.3	7.0	6.7	6.7	7.0	5.7	6.7	6
Brunswick	7.0	6.7	7.0	6.7	6.3	6.3	6.7	9
Parade	7.0	7.0	6.7	6.3	6.7	6.0	6.6	7
Shasta	6.0	6.3	6.7	6.7	7.0	6.3	6.5	0
Adelphi	6.7	6.7	7.0	6.7	5.7	6.0	6.5	10
Glade	6.3	6.7	6.0	6.0	5.0	6.3	6.1	15
Merion	6.3	7.0	6.0	5.7	5.0	6.0	6.0	20
Baron	5.0	5.3	6.0	6.0	5.0	5.7	5.5	15
LSD at 5%	0.8	0.8	1.2	1.2	1.0	1.2	1.0	4.6

TABLE O.--Performance of Kentucky bluegrass cultivars in a turf trial in Camarillo, California, seeded November, 1977 maintained at a moderately high fertility level and mowed at 2" cutting height

9-1 (9=best)

CULTIVAR OR SELECTION	RATING FOR STRIPE RUST
Shasta	7.3
Merion	5.3
Fylking	5.3
Glade	5.3
Brunswick	5.3
P-143	5.0
Touchdown	4.3
LSD at 5%	1.6

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-18
(1-15-73)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Bluegrass)

OBJECTIVE DESCRIPTION OF VARIETY

BLUEGRASS *(POA SPP.)*

NAME OF APPLICANT(S)
Pure-Seed Testing, Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
P. O. Box 449
73 W. G Street
Hubbard, OR 97032

FOR OFFICIAL USE ONLY

PVPO NUMBER 8000079

VARIETY NAME OR TEMPORARY DESIGNATION
SHASTA

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:

[2] 1 = POA COMPRESSA 2 = P. PRATENSIS 3 = P. TRIVIALIS 4 = OTHER (Specify)_____

2. REGION OF BEST ADAPTATION:

[4] 1 = NORTHEAST 2 = TRANSITIONAL ZONE 3 = NORTH CENTRAL 4 = PACIFIC N.W. 5 = OTHER (Specify)_____

3. MATURITY (At First Anthesis):

[2] 1 = EARLY (Delta) 2 = MEDIUM EARLY (Fylking) 3 = MEDIUM (Newport) 4 = LATE (Merion) See Table J.

[0][2] NUMBER OF DAYS EARLIER THAN ..... [6]
[ ][ ] NUMBER OF DAYS LATER THAN ..... [ ]

1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON

4. PLANT HEIGHT (Longest Shoot from Soil Surface to Top of Head):

[0][7][5] CM. HEIGHT See Table A.

[ ][ ] CM. SHORTER THAN ..... [ ]
[0][6] CM. TALLER THAN ..... [4]

1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON

5. HABIT:

[1] 1 = PROSTRATE (Fylking) 2 = SEMI-PROSTRATE (Marion) 3 = ERECT (Delta)

6. VEGETATIVE REPRODUCTION (1 = Absent; 2 = Present):

[2] RHIZOMES [1] STOLONS

7. LEAF BLADE:

[3] Color: 1 = LIGHT GREEN (Rough Bluegrass) 2 = BLUE GREEN (Canada Bluegrass) 3 = MODERATELY DARK GREEN (Merion) 136B Royal Horticulture Chart 4 = DARK GREEN (Adelphi) 5 = OTHER (Specify)_____

[2] Upper Surface: 1 = SHINY 2 = DULL [1] Lower Surface: 1 = SHINY 2 = DULL

[2.][8] MM. WIDTH [4][1] MM. LENGTH See Table A

8. LEAF SHEATH (Base):

[1] Seedling Color: 1 = GREEN 2 = RED [4][6] MM. LENGTH [2] Keel: 1 = NOT KEELED 2 = KEELED

Surface:

[1] 1 = GLABROUS 2 = PUBESCENT [ ] 1 = SMOOTH 2 = ROUGH [X] 1 = NON-GLAUCOUS 2 = GLAUCOUS

9. LEAFINESS (At First Anthesis):

[2] Number of leaves per tiller or shoot: 1 = FEW (1 - 3) 2 = INTERMEDIATE (4 - 6) 3 = MANY (More than 6)

10. PANICLE:

[1][1][1] MM. LENGTH See Tables A & C

[0][1][8] MM. LONGER THAN ..... [4]
[ ][ ][ ] MM. SHORTER THAN ..... [ ]

1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON

FORM GR-470-18 (Reverse)

10. PANICLE (Cont.):

See Table A

[1][8][0] NUMBER OF PANICLES PER PLANT

1 [8][0] MILLIGRAMS SEED PER PANICLE

[2] Branches LOWEST WHORL: 1 = DROOPING (Prato) 2 = HORIZONAL (Merion) 3 = OTHER (Specify) _____

[2] Panicle Habit: 1 = NODDING (Newport) 2 = UPRIGHT (Nugget) [ ][ ] MM. SPIKELET LENGTH

11. LEMMA

[2] KEEL

[2] LATERAL NERVES

1 = GLABROUS 2 = SLIGHTLY PUBESCENT 3 = PUBESCENT 4 = OTHER (Specify) _____

[ ] Intermediate Nerves: 1 = DISTINCT 2 = OBSCURE [2] Basal Webbing: 1 = NONE 2 = SCANT 3 = COPIOUS

12. SEED:

[1] Apomictin Percentage: 1 = MORE THAN 95 2 = 85 TO 95 3 = LESS THAN 85

[2] Phenol Reaction: 1 = NONE - LEMMA REMOVED (Merion) 2 = BEIGE (Cougar) 3 = BROWN (Windsor) 4 = BLACK (Delta - 2 hours) 5 = BLACK (Anheuser - 24 hours)

[0][7][6] MM. WIDTH [3][0][9] MM. LENGTH [5][1][0] GRAMS PER 10,000 SEEDS [ ][ ] CHROMOSOME NO. (2n)

13. TURF DENSITY MAINTENANCE AT ONE INCH CUT:

[3] 1 = POOR 2 = MODERATE (Merion) 3 = SUPERIOR (Nugget) 4 = EXCELLENT Seed Table M

14. VERTICAL GROWTH RATE:

[2] 1 = SLOW (Nugget) 2 = MEDIUM (Merion) 3 = FAST (Delta) 4 = OTHER (Specify relation to a standard) _____

15. SPRING GREEN UP:

[1] 1 = EARLY (Windsor) 2 = MEDIUM (Fylking) 3 = LATE (Nugget)

16. FALL DORMANCY: (1 = Not Dormant; 2 = Intermediate; 3 = Dormant)

[1] NORTHERN (42° 30' ± 30' Lat.) [1] INTERMEDIATE (40° ± 30' Lat.) [ ] SOUTHERN (37° 30' ± 30' Lat.)

17. SEEDLING VIGOR (Growth Rate):

[2] Seedling: 1 = SLOW 2 = MEDIUM 3 = FAST

18. ENVIRONMENTAL RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] COOL TEMPERATURE (Winter color)	[2] COLD (Injury)	[2] HEAT	[2] DROUGHT
[1] SHADE	[2] POOR FERTILITY	[2] ACID SOIL	[0] ALKALINITY
[0] SALINITY	[0] SOIL COMPACTION	[2] POOR DRAINAGE	[0] AIR POLLUTION
[ ] OTHER (Specify) _____			

19. DISEASE, INSECTS, AND NEMATODE RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] HELMINTHOSPORIUM VAGANS Table L	[2] H. SOROKINIANUM	[0] H. DICTYOIDES	[0] RHIZOCTONIA SOLANI
[1] ERYSIPHE GRAMINIS	[2] USTILAGO STRIIFORMIS	[2] FUSARIUM NIVALE	[0] F. ROSEUM
[0] TYPHULA IOTANA	[0] SCELEROTINIA HOMEOCARPA	[1] PUCCINIA GRAMINIA	[2] P. STRIIFORMIS Table J,K,L, N.
[0] PYTHIUM ULTIMATUM	[0] CRAMBUS BONIFATELLUNS	[1] OTHER (Specify) Leaf Rust	

REFERENCE

Nickerson's or any recognized color fan may be used to determine plant colors of the described variety.

MAR 24 1980 1:30

EXHIBIT D.

ADDITIONAL DESCRIPTION OF SHASTA (305 & 307)

Shasta Kentucky bluegrass is a moderately dark green cultivar with a medium early maturity (Table J). In tests near Hubbard, Oregon and Camarillo, California, it has shown moderately good resistance to Helminthosporium vagans and very good resistance to stripe rust (Puccinia striiformis) in turf and seed production fields (Table J, K, L, N, & O).

Shasta has rated well with good density, (Table M), in turf trials near Hubbard, Oregon at moderately high fertility. (E, F, L, & N) and very good compared to other varieties in turf trials maintained at low fertility (Table G).

Shasta has performed well in plots in Greenfield, Indiana (Table H) and has shown good spring greenup in tests in Beltsville, Maryland (Table 3) Shasta does not get stemmy in late spring during seed head formation like many other Kentucky bluegrass varieties.

Stripe smut has not been observed to be a problem on Shasta in turf trials. It has not performed well in shade tests and is susceptible to powdery mildew.